

AMENDMENTS TO THE CLAIMS

Please amend the claims to read as follows:

1.-41. (Cancelled)

42. (New) A method of ameliorating or preventing damage caused by cigarette smoke, comprising:

administering substance P or a analog thereof to a subject who has or will be exposed to cigarette smoke, wherein the analog is selected from the group consisting of [Met-OH¹¹]-substance P, [Met-OMe¹¹]-substance P, [Nle¹¹]-substance P, [Pro⁹]-substance P, [Sar⁹]-substance P, [Tyr⁸]-substance P, [p-Cl-Phe^{7,8}]-substance P, and [Sar⁹, Met (O₂)¹¹]-substance P.

43. (New) The method of claim 42 wherein the cigarette smoke is side-stream cigarette smoke.

44. (New) The method of claim 42 wherein the cigarette smoke is main-stream cigarette smoke.

45. (New) The method of claim 42 wherein the substance P or analog is administered at a concentration of 0.1 μ M to 10 μ M.

46. (New) The method of claim 42 wherein the substance P or analog is administered at a concentration of 0.5 μ M to 5 μ M.

47. (New) The method of claim 42 wherein the substance P or analog is administered in an amount sufficient to prevent micronuclei formation in the subject's bone marrow cells.

48. (New) The method of claim 42 wherein the substance P or analog is administered in an amount sufficient to prevent micronuclei formation in the subject's blood cells.

49. (New) The method of claim 42 wherein the substance P or analog is administered in an amount sufficient to increase dynamic lung compliance.

50. (New) The method of claim 42 wherein the substance P or analog is administered in an amount sufficient to prevent damage to the basement membrane of endothelial cells of airways.

51. (New) The method of claim 42 wherein the substance P or analog is administered by inhalation.

52. (New) The method of claim 51 wherein the substance P or analog is administered by aerosol.

53. (New) The method of claim 51 wherein the substance P or analog is administered by nebulizer.

54. (New) The method of claim 51 wherein the substance P or analog is administered by the filter of a cigarette, cigar or other smoking product.

55. (New) The method of claim 42 where in the substance P or analog is administered intravenously.

56. (New) The method of claim 42 wherein the substance P or analog is administered transdermally.

57. (New) The method of claim 42 wherein the substance P or analog is administered intramuscularly.

58. (New) The method of claim 42 wherein the substance P or analog is administered intranasally.

59. (New) The method of claim 42 wherein the substance P or analog is administered orally.

60. (New) The method of claim 42 wherein the substance P or analog is administered bucally.

61. (New) The method of claim 59 wherein the substance P or analog is administered via gum or lozenge.

62. (New) The method of claim 42 wherein the damage caused by cigarette smoking is emphysema.

63. (New) The method of claim 42 wherein the damage caused by cigarette smoke is chronic obstructive pulmonary disease.

64. (New) The method of claim 42 wherein the damage caused by cigarette smoke is coughing.

65. (New) The method of claim 42 wherein the damage caused by cigarette smoke is cancer.

66. (New) The method of claim 64 wherein the cancer is lung cancer.

67. (New) The method of claim 42 wherein the damage caused by cigarette smoke is cilia loss in airway epithelium.

68. (New) A method of treating damage caused by cigarette smoke comprising: administering to a subject in need thereof an effective amount of Substance P or an analog thereof.

69. (New) The method of claim 67 wherein the in the analog is selected from the group consisting of [Met-OH¹¹]-substance P, [Met-OMe¹¹]-substance P, [Nle¹¹]-substance P, [Pro⁹]-substance P, [Sar⁹]-substance P, [Tyr⁸]-substance P, [p-Cl-Phe^{7,8}]-substance P, and [Sar⁹, Met (O₂)¹¹]-substance P.

70. (New) The method of claim 67 wherein the cigarette smoke is side-stream cigarette smoke.

71. (New) The method of claim 67 wherein the cigarette smoke is main-stream cigarette smoke.

72. (New) The method of claim 67 wherein the substance P or analog is administered at a concentration of 0.1 μ M to 10 μ M.

73. (New) The method of claim 67 wherein the substance P or analog is administered at a concentration of 0.5 μ M to 5 μ M.

74. (New) The method of claim 67 wherein the substance P or analog is administered in an amount sufficient to prevent micronuclei formation in the subject's bone marrow cells.

75. (New) The method of claim 67 wherein the substance P or analog is administered in an amount sufficient to prevent micronuclei formation in the subject's blood cells.

76. (New) The method of claim 67 wherein the substance P or analog is administered in an amount sufficient to increase dynamic lung compliance.

77. (New) The method of claim 67 wherein the substance P or analog is administered in an amount sufficient to prevent damage or remedy damage to basement membrane of endothelial cells of airways.

78. (New) The method of claim 67 wherein the substance P or analog is administered by inhalation.

79. (New) The method of claim 67 wherein the substance P or analog is administered by aerosol.

80. (New) The method of claim 67 wherein the substance P or analog is administered by nebulizer.

81. (New) The method of claim 67 wherein the substance P or analog is administered by the filter of a cigarette, cigar or other smoking product.

82. (New) The method of claim 67 where in the substance p or analog is administered intravenously.

83. (New) The method of claim 67 wherein the substance P or analog is administered transdermally.

84. (New) The method of claim 67 wherein the substance P or analog is administered intramuscularly.

85. (New) The method of claim 67 wherein the substance P or analog is administered intranasally.

86. (New) The method of claim 67 wherein the substance P or analog is administered orally.

87. (New) The method of claim 67 wherein the substance P or analog is administered bucally.

88. (New) The method of claim 67 wherein the damage caused by cigarette smoking is emphysema.

89. (New) The method of claim 67 wherein the damage caused by cigarette smoke is chronic obstructive pulmonary disease.

90. (New) The method of claim 67 wherein the damage caused by cigarette smoke is coughing.

91. (New) The method of claim 67 wherein the damage caused by cigarette smoke is cancer.

92. (New) The method of claim 90 wherein the cancer is lung cancer.

93. (New) The method of claim 67 wherein the damage caused by cigarette smoke is cilia loss in airway epithelium.

94. (New) A method of treating, ameliorating or preventing damage caused by cigarette smoke, comprising:

administering a polynucleotide to an animal, said polynucleotide encoding a secretable substance P protein or a bioactive analog wherein the bioactive analog is [Pro⁹]-substance P or [Tyr⁸]-substance P.

95. (New) The method of claim 93 wherein the cigarette smoke is side-stream cigarette smoke.
96. (New) The method of claim 93 wherein the cigarette smoke is main-stream cigarette smoke.
97. (New) The method of claim 93 wherein the damage caused by cigarette smoke is chronic obstructive pulmonary disease.
98. (New) The method of claim 93 wherein the damage caused by cigarette smoke is coughing.
99. (New) The method of claim 93 wherein the damage caused by cigarette smoke is cancer.
100. (New) The method of claim 98 wherein the cancer is lung cancer.